

Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Channel	PCL	Conducted Power (dBm)	Antenna Gain (dBi)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GSM850	128	5	32.88	-1.1	29.63	38.45	PASS
GSM850	190	5	33.04	-1.1	29.79	38.45	PASS
GSM850	251	5	33.00	-1.1	29.75	38.45	PASS
GSM1900	512	0	29.66	0.2	29.86	33.00	PASS
GSM1900	661	0	29.97	0.2	30.17	33.00	PASS
GSM1900	810	0	29.67	0.2	29.87	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	Antenna Gain (dBi)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.97	-1.1	29.72	38.45	PASS
GPRS850	128	5	2	30.63	-1.1	27.38	38.45	PASS
GPRS850	128	5	3	28.69	-1.1	25.44	38.45	PASS
GPRS850	128	5	4	26.77	-1.1	23.52	38.45	PASS
GPRS850	190	5	1	33.11	-1.1	29.86	38.45	PASS
GPRS850	190	5	2	30.90	-1.1	27.65	38.45	PASS
GPRS850	190	5	3	28.90	-1.1	25.65	38.45	PASS
GPRS850	190	5	4	26.99	-1.1	23.74	38.45	PASS
GPRS850	251	5	1	33.07	-1.1	29.82	38.45	PASS
GPRS850	251	5	2	30.98	-1.1	27.73	38.45	PASS
GPRS850	251	5	3	28.96	-1.1	25.71	38.45	PASS
GPRS850	251	5	4	26.97	-1.1	23.72	38.45	PASS
GPRS1900	512	0	1	29.67	0.2	29.87	33.00	PASS
GPRS1900	512	0	2	27.90	0.2	28.1	33.00	PASS
GPRS1900	512	0	3	26.50	0.2	26.7	33.00	PASS
GPRS1900	512	0	4	24.43	0.2	24.63	33.00	PASS
GPRS1900	661	0	1	29.98	0.2	30.18	33.00	PASS
GPRS1900	661	0	2	27.99	0.2	28.19	33.00	PASS
GPRS1900	661	0	3	26.60	0.2	26.8	33.00	PASS
GPRS1900	661	0	4	24.52	0.2	24.72	33.00	PASS
GPRS1900	810	0	1	29.72	0.2	29.92	33.00	PASS
GPRS1900	810	0	2	27.53	0.2	27.73	33.00	PASS
GPRS1900	810	0	3	26.13	0.2	26.33	33.00	PASS
GPRS1900	810	0	4	24.12	0.2	24.32	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	Antenna Gain (dBi)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	25.76	-1.1	22.51	38.45	PASS
EGPRS850	128	8	2	24.57	-1.1	21.32	38.45	PASS
EGPRS850	128	8	3	22.47	-1.1	19.22	38.45	PASS
EGPRS850	128	8	4	20.22	-1.1	16.97	38.45	PASS
EGPRS850	190	8	1	25.95	-1.1	22.7	38.45	PASS
EGPRS850	190	8	2	24.87	-1.1	21.62	38.45	PASS
EGPRS850	190	8	3	22.71	-1.1	19.46	38.45	PASS
EGPRS850	190	8	4	20.38	-1.1	17.13	38.45	PASS
EGPRS850	251	8	1	25.64	-1.1	22.39	38.45	PASS
EGPRS850	251	8	2	24.57	-1.1	21.32	38.45	PASS
EGPRS850	251	8	3	22.40	-1.1	19.15	38.45	PASS
EGPRS850	251	8	4	20.06	-1.1	16.81	38.45	PASS
EGPRS1900	512	2	1	26.82	0.2	27.02	33.00	PASS
EGPRS1900	512	2	2	25.49	0.2	25.69	33.00	PASS
EGPRS1900	512	2	3	23.92	0.2	24.12	33.00	PASS
EGPRS1900	512	2	4	21.88	0.2	22.08	33.00	PASS
EGPRS1900	661	2	1	27.03	0.2	27.23	33.00	PASS
EGPRS1900	661	2	2	25.63	0.2	25.83	33.00	PASS
EGPRS1900	661	2	3	24.18	0.2	24.38	33.00	PASS
EGPRS1900	661	2	4	22.03	0.2	22.23	33.00	PASS
EGPRS1900	810	2	1	26.67	0.2	26.87	33.00	PASS
EGPRS1900	810	2	2	25.32	0.2	25.52	33.00	PASS
EGPRS1900	810	2	3	23.79	0.2	23.99	33.00	PASS
EGPRS1900	810	2	4	21.83	0.2	22.03	33.00	PASS

Remark: EIRP (dBm) = Conducted power (dBm) + Antenna Gain (dBi). (For GSM1900)

ERP (dBm) = EIRP (dBm) - 2.15 (dB). (For GSM850)

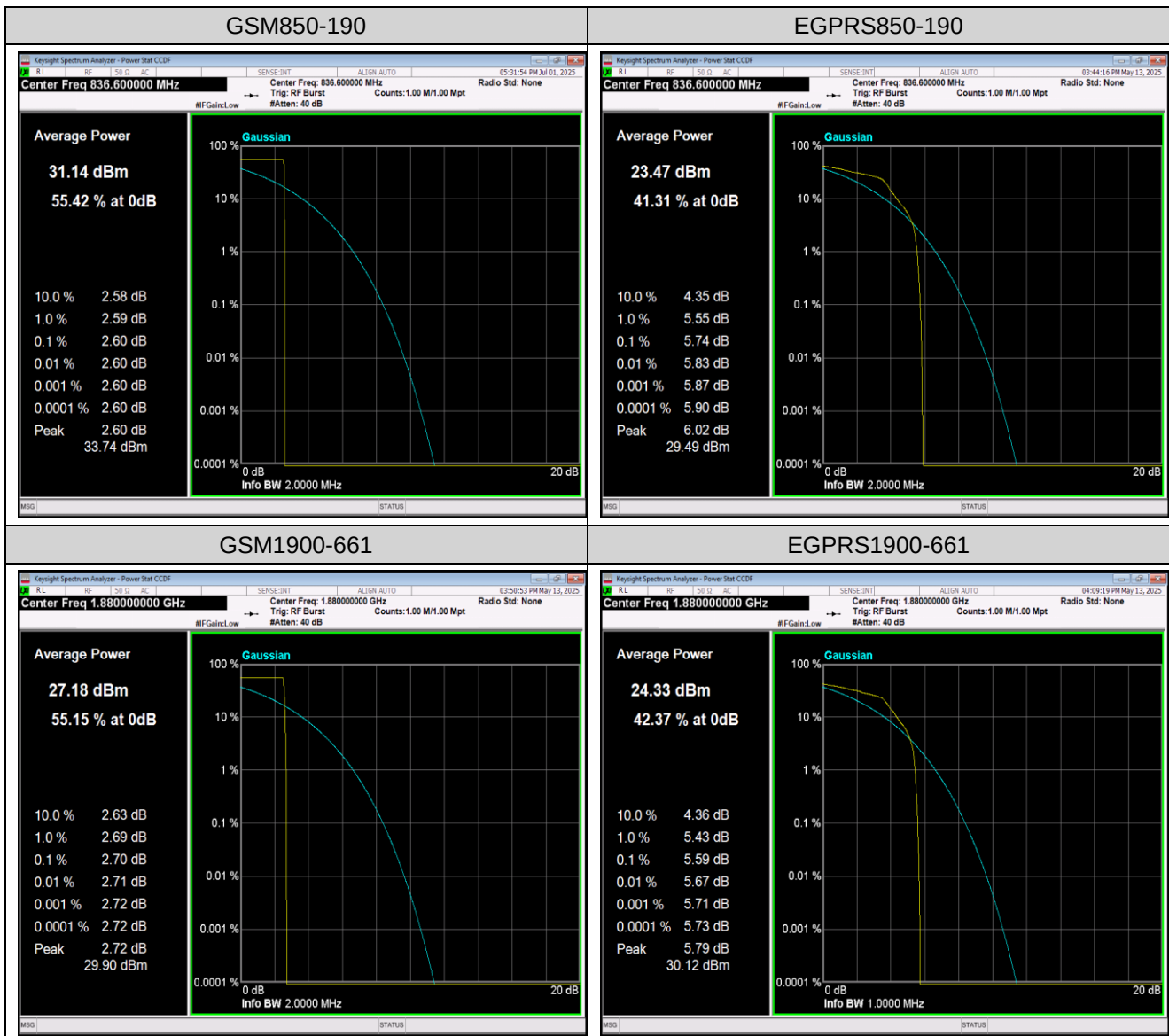
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.6	13	PASS
EGPRS850	190	8	5.74	13	PASS
GSM1900	661	0	2.7	13	PASS
EGPRS1900	661	2	5.59	13	PASS

Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs

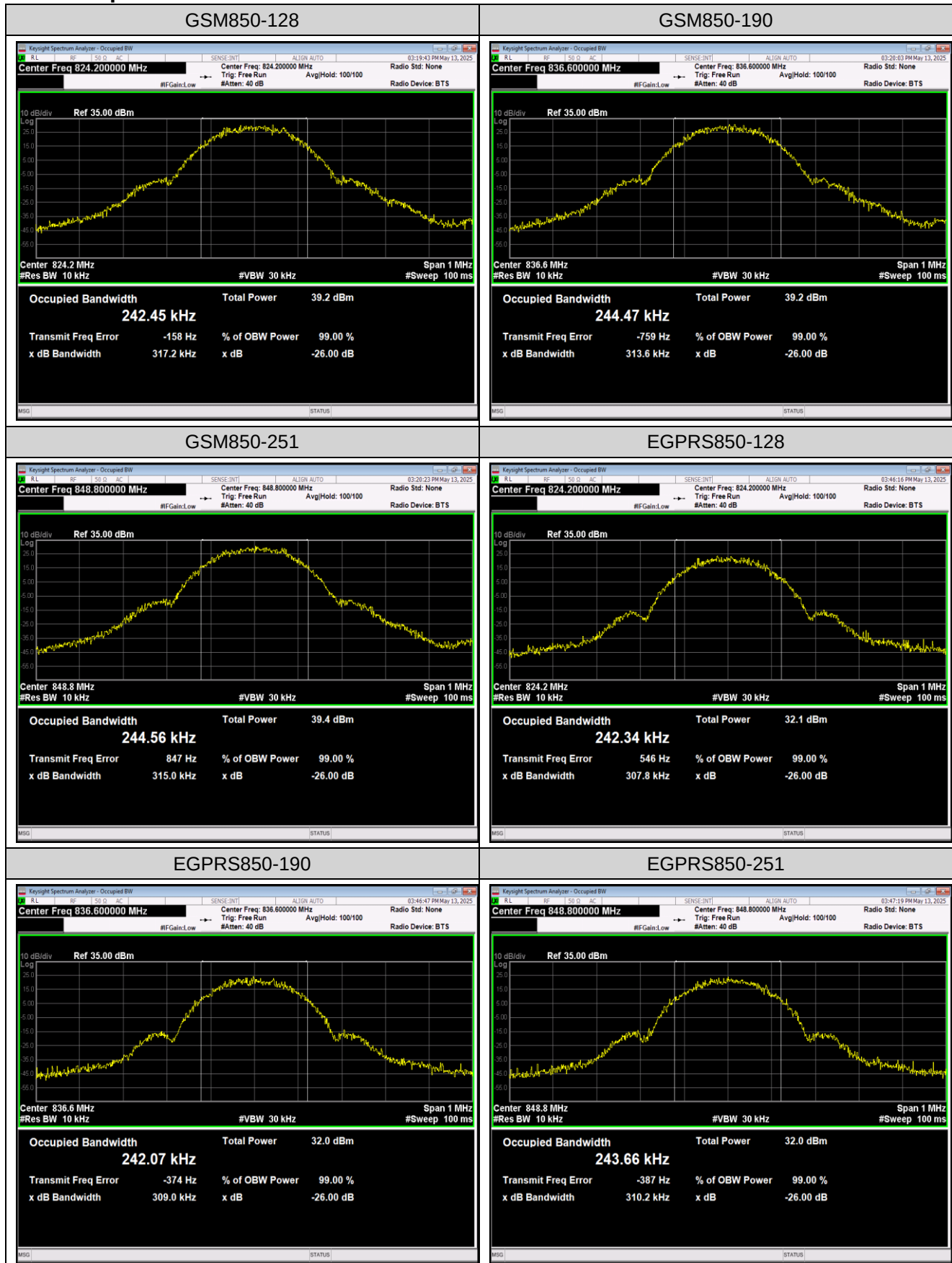


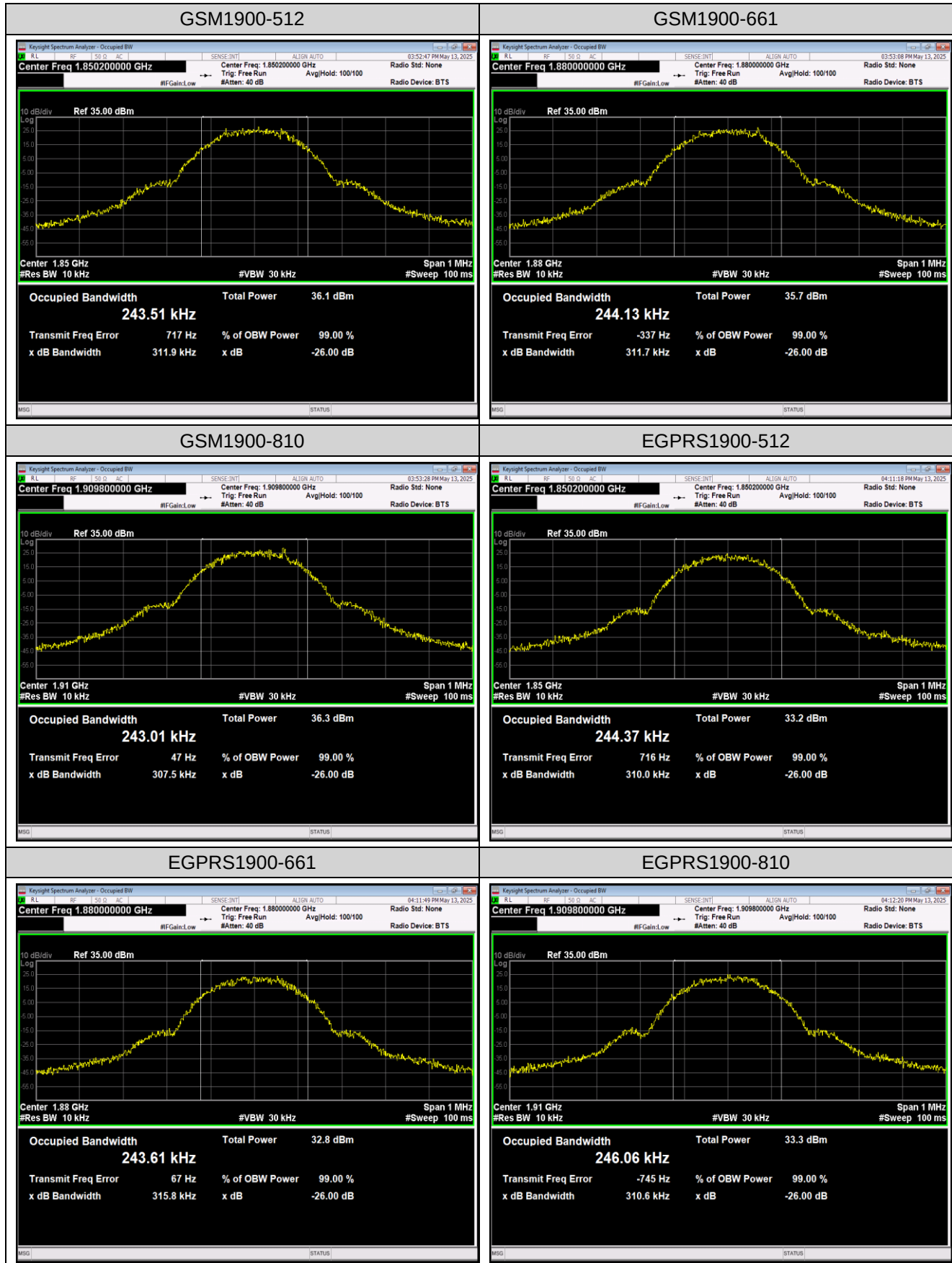
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24245	0.3172	---	PASS
GSM850	190	5	0.24447	0.3136	---	PASS
GSM850	251	5	0.24456	0.3150	---	PASS
EGPRS850	128	8	0.24234	0.3078	---	PASS
EGPRS850	190	8	0.24207	0.3090	---	PASS
EGPRS850	251	8	0.24366	0.3102	---	PASS
GSM1900	512	0	0.24351	0.3119	---	PASS
GSM1900	661	0	0.24413	0.3117	---	PASS
GSM1900	810	0	0.24301	0.3075	---	PASS
EGPRS1900	512	2	0.24437	0.3100	---	PASS
EGPRS1900	661	2	0.24361	0.3158	---	PASS
EGPRS1900	810	2	0.24606	0.3106	---	PASS

Test Graphs



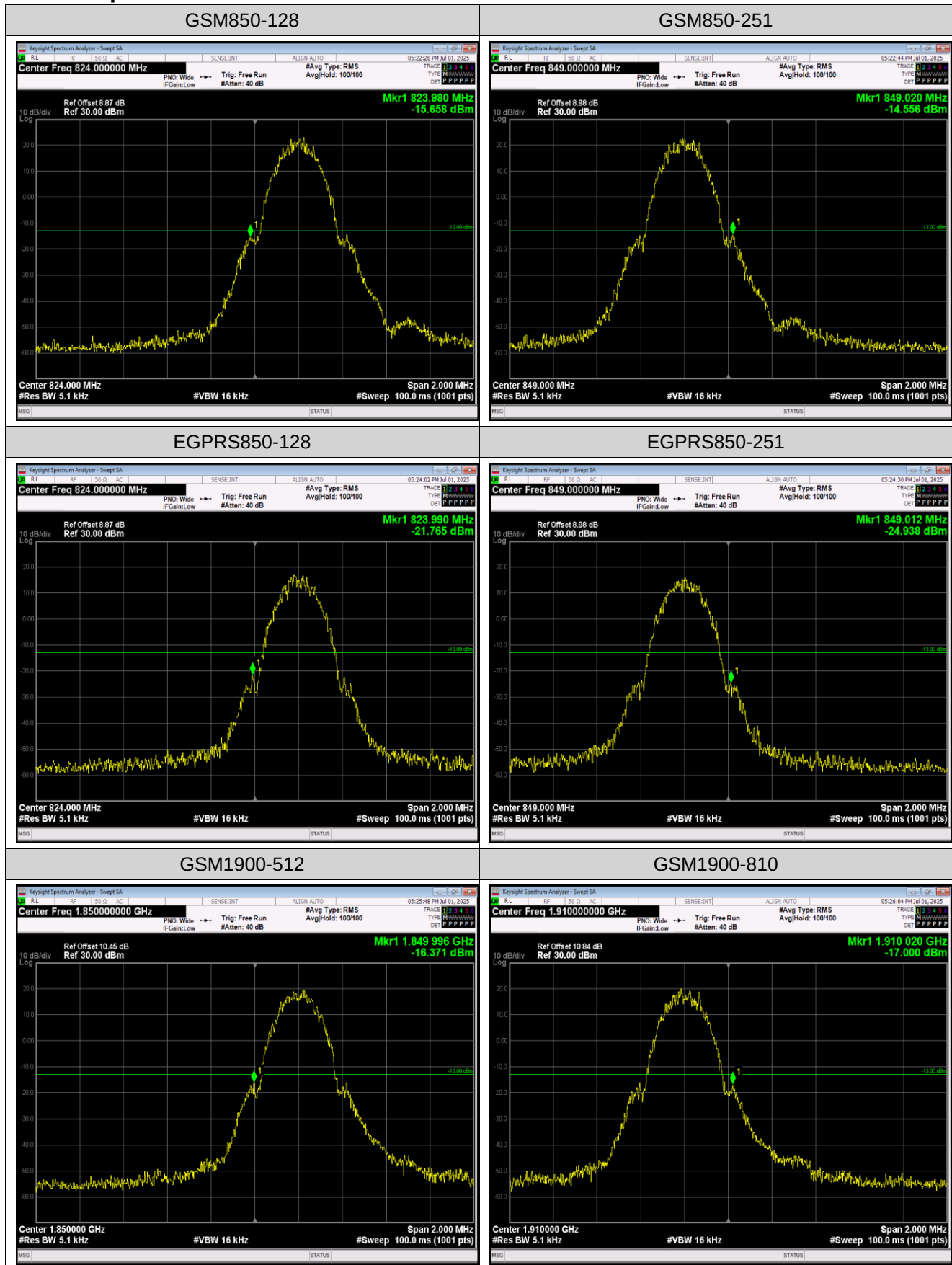


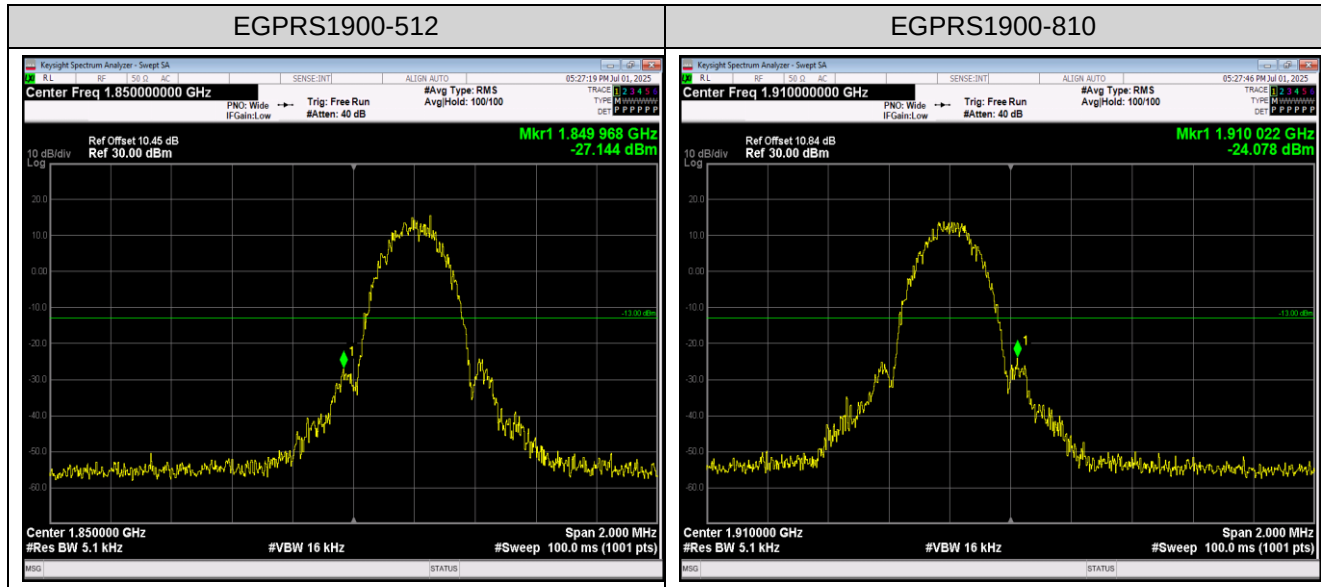
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-15.66	-13	PASS
GSM850	251	5	849.02	-14.56	-13	PASS
EGPRS850	128	8	823.99	-21.77	-13	PASS
EGPRS850	251	8	849.01	-24.94	-13	PASS
GSM1900	512	0	1850.00	-16.37	-13	PASS
GSM1900	810	0	1910.02	-17.00	-13	PASS
EGPRS1900	512	2	1849.97	-27.14	-13	PASS
EGPRS1900	810	2	1910.02	-24.08	-13	PASS

Test Graphs





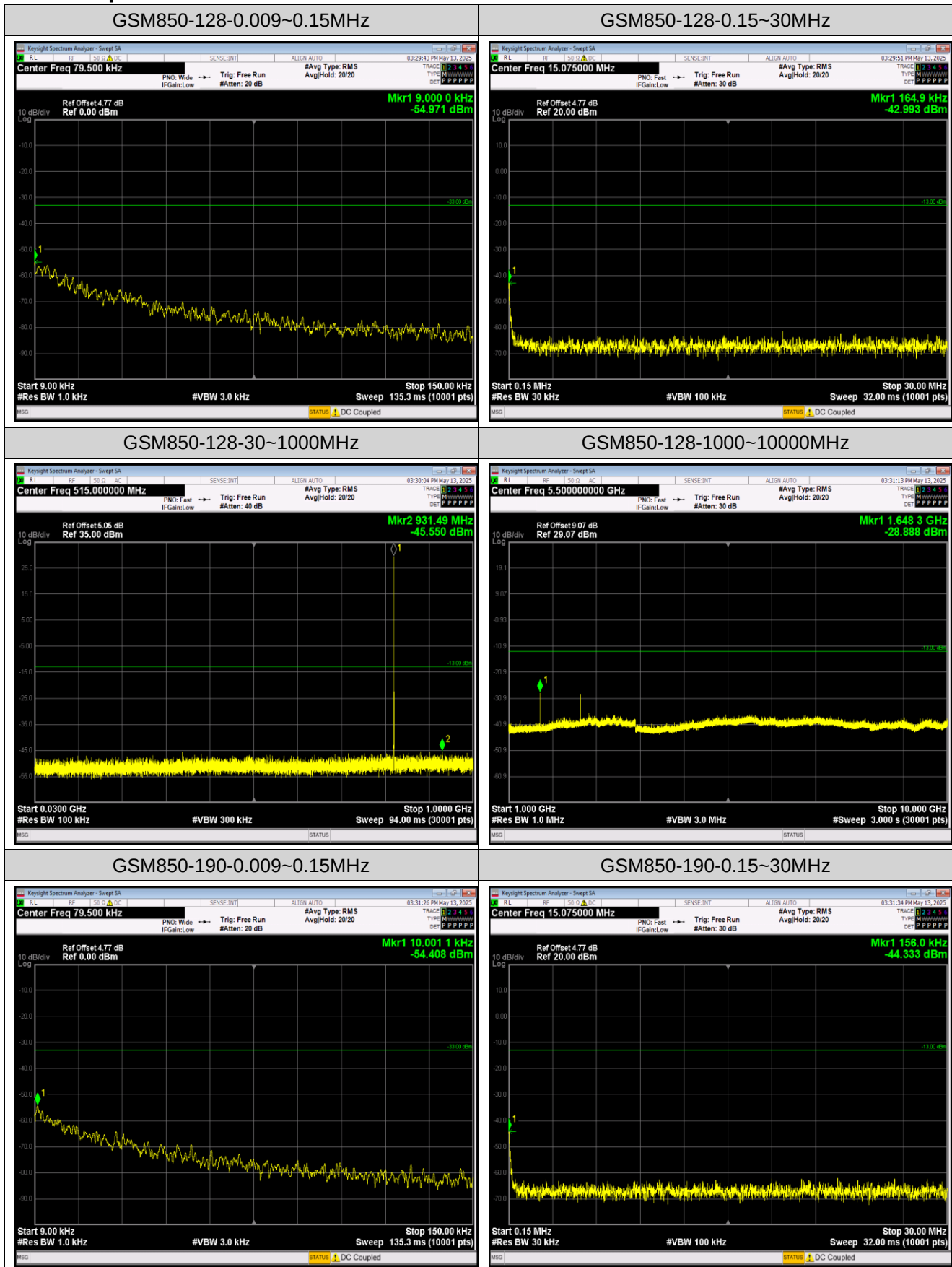
Appendix E: Conducted Spurious Emission

Test Result

Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-54.97	-33	PASS
GSM850	128	5	0.15~30MHz	0.16	-42.99	-13	PASS
GSM850	128	5	30~1000MHz	931.49	-45.55	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-28.89	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-54.41	-33	PASS
GSM850	190	5	0.15~30MHz	0.16	-44.33	-13	PASS
GSM850	190	5	30~1000MHz	965.02	-46.06	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-28.53	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-53.21	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-42.05	-13	PASS
GSM850	251	5	30~1000MHz	469.38	-45.37	-13	PASS
GSM850	251	5	1000~10000MHz	1697.5	-28.81	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-54.68	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-41.44	-23	PASS
GSM1900	512	0	30~1000MHz	394.59	-46.98	-13	PASS
GSM1900	512	0	1000~18000MHz	16468.87	-22.22	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-54.74	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-43.33	-23	PASS
GSM1900	661	0	30~1000MHz	390.13	-46.33	-13	PASS
GSM1900	661	0	1000~18000MHz	16199.13	-21.75	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-54.48	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-40.16	-23	PASS
GSM1900	810	0	30~1000MHz	954.73	-46.77	-13	PASS
GSM1900	810	0	1000~18000MHz	16995.87	-22.05	-13	PASS

Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs

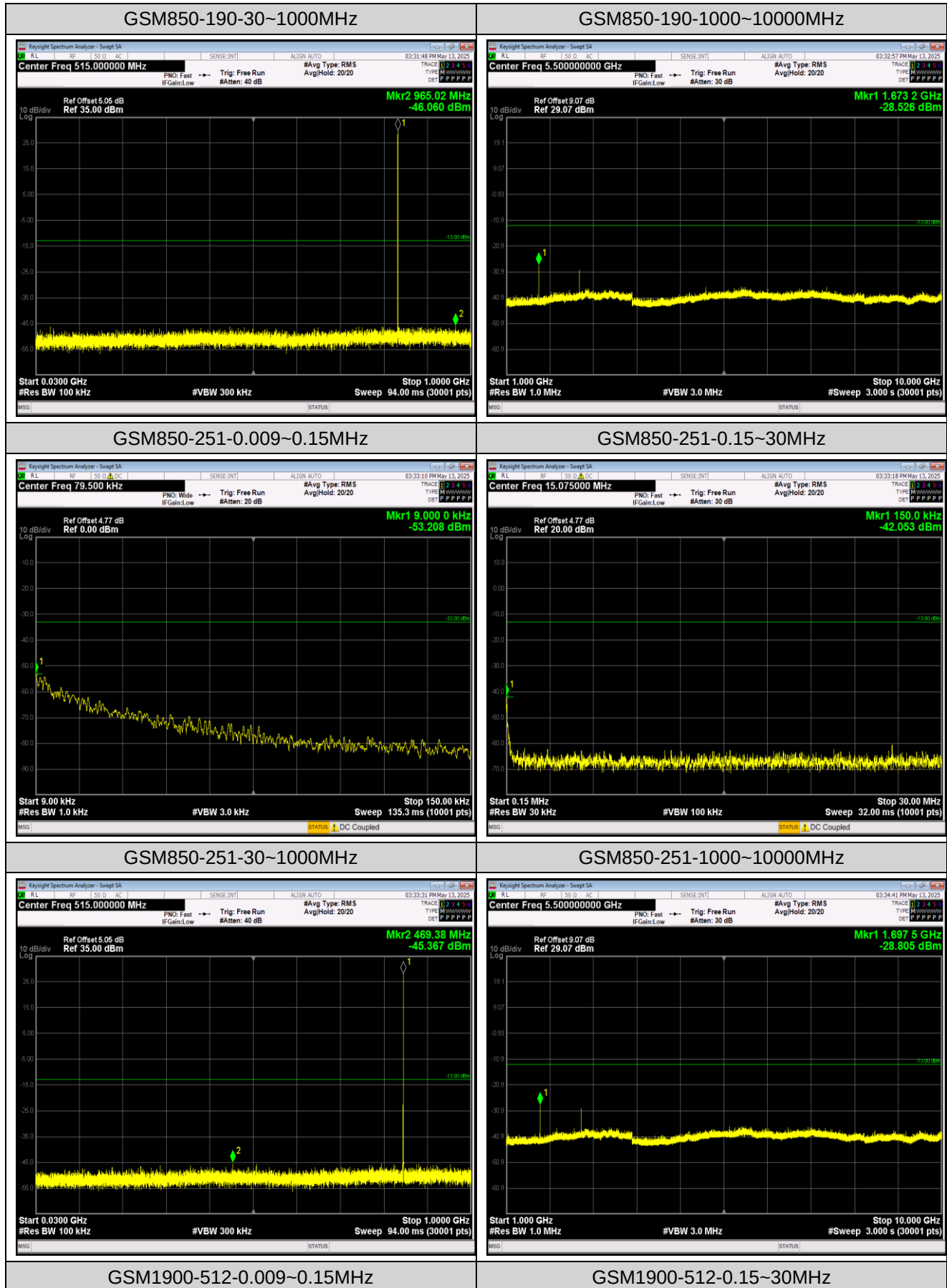


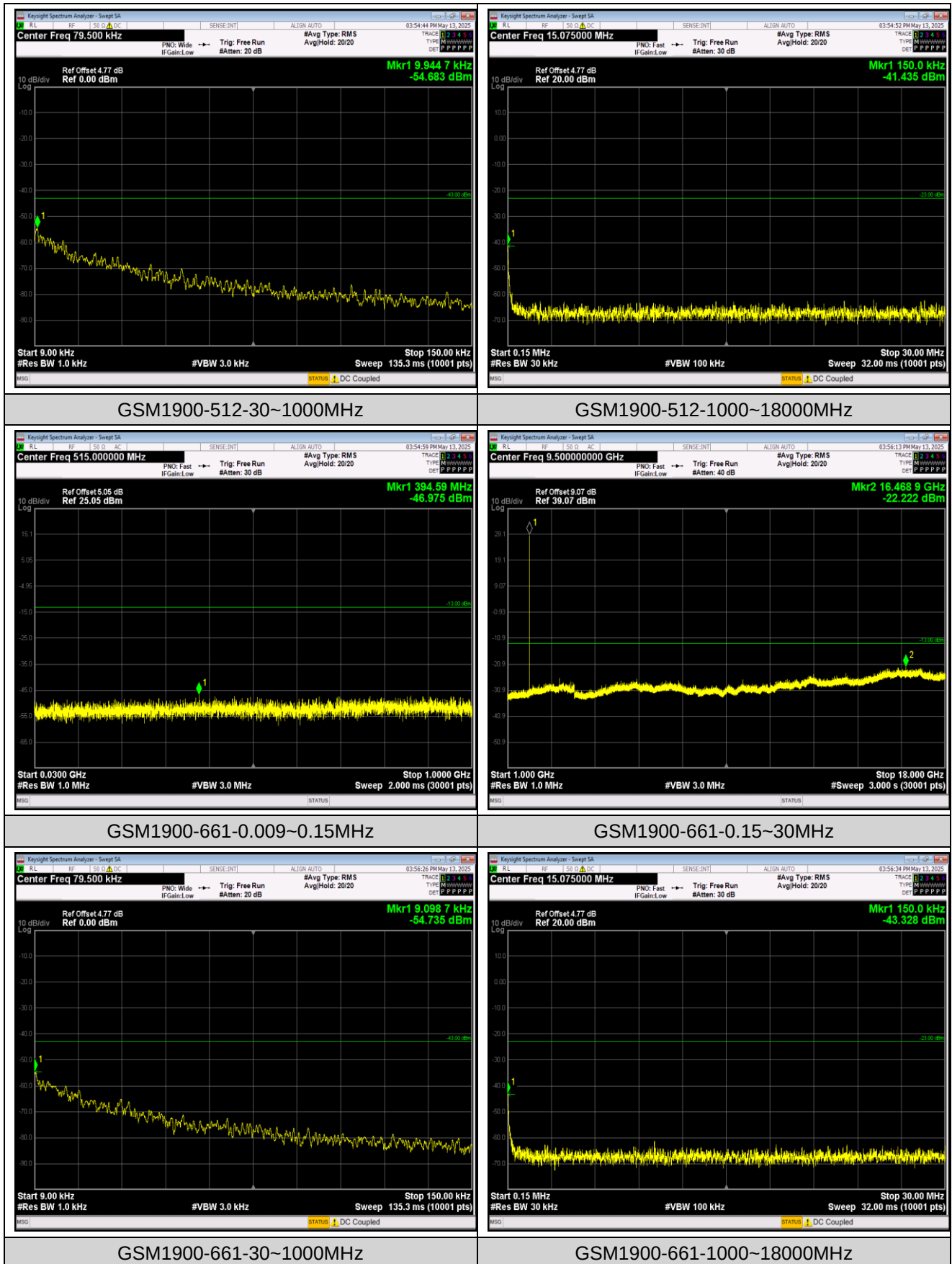
JianYan Testing Group Shenzhen Co., Ltd.

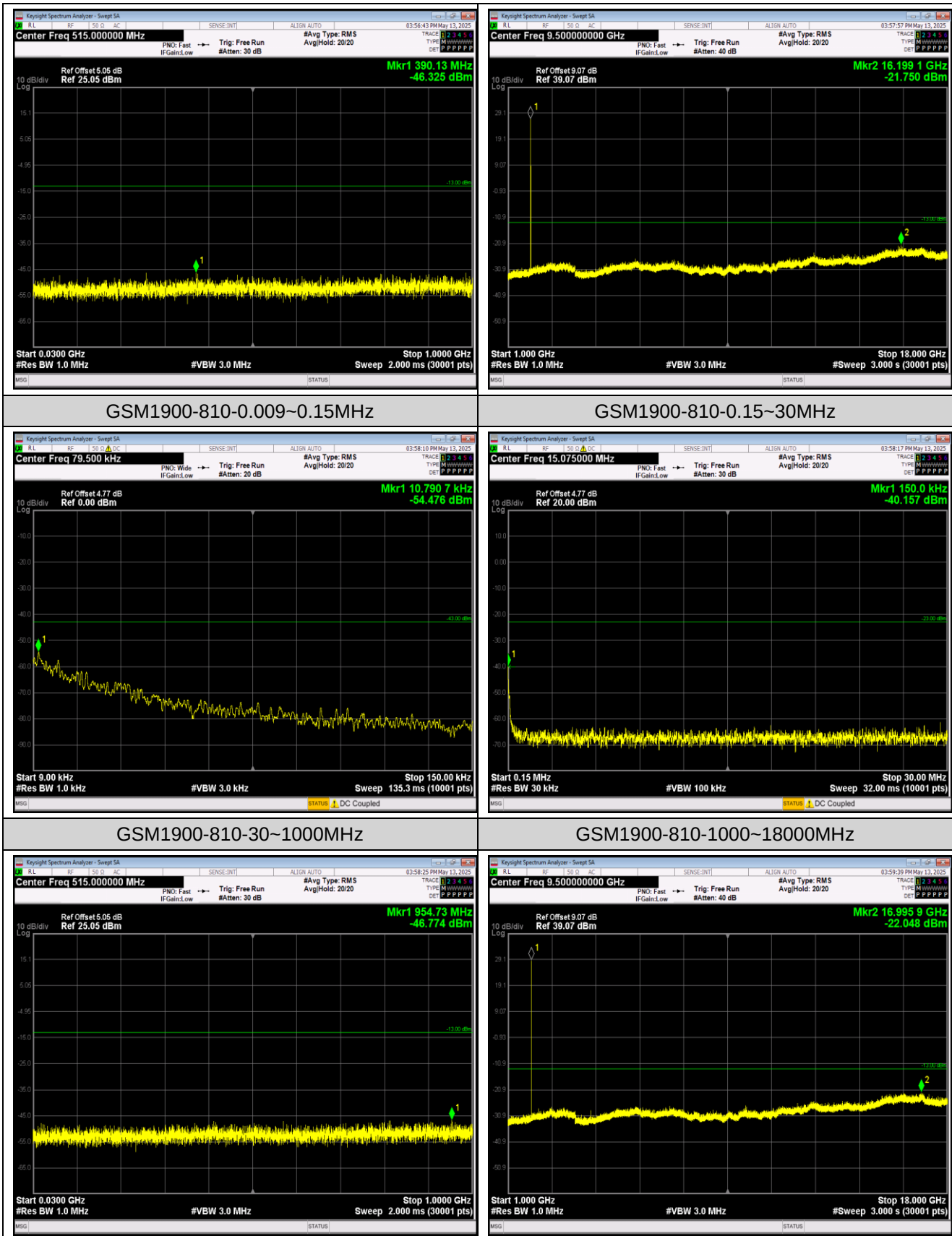
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Appendix F: Frequency Stability

Test Result

Reference Frequency: GSM850 Middle channel=190 Frequency=836.6MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	15.98	0.019101	±2.5	Pass
	-20	13.20	0.015778		
	-10	12.37	0.014786		
	0	14.08	0.016830		
	10	8.62	0.010304		
	20	12.59	0.015049		
	30	10.33	0.012348		
	40	9.91	0.011846		
	50	11.91	0.014236		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	14.46	0.017284	±2.5	Pass
	3.85	12.75	0.015240		
	4.40	13.62	0.016280		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

Reference Frequency: EGPRS850 Middle channel=190 Frequency=836.6MHz					
Temperature					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	13.85	0.016555	±2.5	Pass
	-20	18.79	0.022460		
	-10	9.98	0.011929		
	0	11.46	0.013698		
	10	13.20	0.015778		
	20	15.98	0.019101		
	30	12.43	0.014858		
	40	11.95	0.014284		
	50	12.43	0.014858		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	12.40	0.014822	±2.5	Pass
	3.85	14.63	0.017487		
	4.40	14.40	0.017213		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

Reference Frequency: PCS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	-2.42	-0.001287	Within authorized band for PCS 1900	Pass
	-20	12.62	0.006713		
	-10	14.72	0.007830		
	0	8.94	0.004755		
	10	19.50	0.010372		
	20	12.30	0.006543		
	30	9.46	0.005032		
	40	7.33	0.003899		
	50	3.84	0.002043		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	6.36	0.003383	Within authorized band for PCS 1900	Pass
	3.85	8.75	0.004654		
	4.40	5.78	0.003074		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

Reference Frequency: EGPRS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	11.33	0.006027	Within authorized band for PCS 1900	Pass
	-20	6.75	0.003590		
	-10	3.94	0.002096		
	0	4.78	0.002543		
	10	-2.20	-0.001170		
	20	6.62	0.003521		
	30	9.14	0.004862		
	40	15.43	0.008207		
	50	12.33	0.006559		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	9.85	0.005239	Within authorized band for PCS 1900	Pass
	3.85	11.49	0.006112		
	4.40	2.20	0.001170		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

Appendix G: Modulation Characteristics

Test Result

Band	Channel	Result	Verdict
GSM850	190	PASS	PASS
EGPRS850	190	PASS	PASS
GSM1900	661	PASS	PASS
EGPRS1900	661	PASS	PASS

Remark: All channel had been tested, but only the worst case data displayed in this report.

Test Graphs

